

Release notes for ENDF/B Development e-040_Zr_000
evaluation

ENDF
B-VII.dev

October 13, 2016

- fudge-4.0 Warnings:

1. Mislabelled emitted particle
Reading ENDF file: ../e-040_Zr_000.endf (Error # 0): ZAP messed up

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message
reaction label 1: e- + Zr + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message
reaction label 2: e- + Zr [excitation] / Product: e- (Error # 0): Generic unimp (c)

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree
reaction label 0: e- + Zr [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree
reaction label 1: e- + Zr + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree
reaction label 2: e- + Zr [excitation] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree
reaction label 3: e- + e- + Zr1s1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17962. eV!
5. Calculated and tabulated thresholds don't agree
reaction label 4: e- + e- + Zr2s1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2514.6 eV!
6. Calculated and tabulated thresholds don't agree
reaction label 5: e- + e- + Zr2p1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2312.2 eV!
7. Calculated and tabulated thresholds don't agree
reaction label 6: e- + e- + Zr2p3/2 / Cross section: (Error # 0): Threshold mismatch

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2224.8 eV!
8. Calculated and tabulated thresholds don't agree
reaction label 7: $e^- + e^- + \text{Zr}3s1/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 422.06 eV!

 9. Calculated and tabulated thresholds don't agree
reaction label 8: $e^- + e^- + \text{Zr}3p1/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 344.93 eV!

 10. Calculated and tabulated thresholds don't agree
reaction label 9: $e^- + e^- + \text{Zr}3p3/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 330.88 eV!

 11. Calculated and tabulated thresholds don't agree
reaction label 10: $e^- + e^- + \text{Zr}3d3/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 193.09 eV!

 12. Calculated and tabulated thresholds don't agree
reaction label 11: $e^- + e^- + \text{Zr}3d5/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 190.49 eV!

 13. Calculated and tabulated thresholds don't agree
reaction label 12: $e^- + e^- + \text{Zr}4s1/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.96 eV!

 14. Calculated and tabulated thresholds don't agree
reaction label 13: $e^- + e^- + \text{Zr}4p1/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.63 eV!

 15. Calculated and tabulated thresholds don't agree
reaction label 14: $e^- + e^- + \text{Zr}4p3/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.74 eV!

 16. Calculated and tabulated thresholds don't agree
reaction label 15: $e^- + e^- + \text{Zr}4d3/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.67 eV!

 17. Calculated and tabulated thresholds don't agree
reaction label 16: $e^- + e^- + \text{Zr}4d5/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.52 eV!

 18. Calculated and tabulated thresholds don't agree
reaction label 17: $e^- + e^- + \text{Zr}5s1/2$ / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.12 eV!

- `xsectplotter` Warnings:

1. Mislabelled emitted particle
Error: ZAP messed up

```
stderr while processing crossSection
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WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]
```